

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listings of Claims:

1. (Currently amended) An RFID interrogator, comprising:

an antenna configured to transmit and receive RF signals;

an RF transceiver configured to receive backscatter modulated RF signals,

and generate transmit RF signals;

an amplifier coupled with the antenna the antenna and the RF transceiver
configured to amplify the transmit RF signals~~a transmit signal~~ ;

a first energy director coupled between the RF transceiver and the
amplifier, the first energy director configured to receive the RF transmit signal
and direct them to the amplifier and to receive backscatter modulated RF signals
and direct them to the RF transceiver; and

an second energy director coupled between the amplifier and the antenna,
~~with the antenna and the amplifier,~~ the second energy director configured to
receive the amplified transmit signals from the amplifier and send the amplified
transmit signals to the antenna, and to receive a backscatter modulated RF receive
signal from the antenna and direct the receive backscatter modulated RF signal to
the first energy director bypassing the amplifier. ~~to a receive path.~~
2. (Previously presented) The RFID interrogator of claim 1, wherein

the antenna transmits signals to, and receives signals from, an RFID tag.

3. (Canceled)
4. (Presently amended) The RFID interrogator of claim 13, wherein the directors are circulators.
5. (Presently amended) The RFID interrogator of claim 13, wherein the directors are directional couplers.
6. (Previously presented) The RFID interrogator of claim 1, wherein the amplifier is a variable gain amplifier (VGA).
7. (Previously presented) The RFID interrogator of claim 1, further comprising a feedback loop coupled with the output of the amplifier, the feedback loop configured to sense the output energy from the amplifier and control the amplifier gain in response to the sensed output energy.
8. (Previously presented) The RFID interrogator of claim 7, wherein the feedback loop maintains the transmit signal energy at or below a certain level.
9. (Previously presented) The RFID interrogator of claim 7, wherein the feedback loop maintains the transmit signal energy at or above a certain level.

10. (Previously presented) The RFID interrogator of claim 7, wherein the feedback loop includes an energy coupler, a rectifier, and a power leveling network.

11-13 (Canceled)

14. (Currently amended) The RFID interrogator of claim 11, further comprising a decoder coupled with the RF transceiver, and, wherein the RF transceiver is configured to send the received RF backscatter modulated signals to a the decoder.

15. (Previously presented) The RFID interrogator of claim 1, further comprising a switch and a plurality of antennas, and wherein the energy director is coupled with a the switch, the switch configured to direct the transmit signal to one of a the plurality of antennas.

16. (Previously presented) The RFID interrogator of claim 15, further comprising a plurality of switches and wherein the energy director is coupled with a the plurality of switches, each of the plurality of switches configured to direct the transmit signal to one or more of a the plurality of antennas.

17. (Previously presented) The RFID interrogator of claim 1, wherein the transmit signal is transmitted to a RFID tag.

18. (Previously presented) The RFID scanner of claim 1, wherein the received signal contains data from the RFID tag.

19-24. (Canceled)

25. (Currently amended) An RFID interrogator system, comprising:
an plurality of antennas each of the plurality of antennas configured to transmit and receive signals; and
a plurality of amplifier switch block coupled with the plurality of antennas, each of the plurality of amplifier switch blocks comprising:
an amplifier configured to amplify a transmit signal; and
an energy director coupled with the some of the plurality of antennas and the amplifier, the energy director configured to receive the amplified transmit signal from the amplifier and send the amplified transmit signal to the antennas, and to receive a receive signal from the antennas and direct the receive signal to a receive path.

26. (Previously presented) The RFID interrogator system of claim 25, wherein the plurality of antennas transmits signals to, and receives signals from, an RFID tag.

27. (Previously presented) The RFID interrogator system of claim 25, wherein the energy director comprises a director at the input of the amplifier, and a director at the output of the amplifier.

28. (Previously presented) RFID interrogator system of claim 27, wherein the directors are circulators.

29. (Previously presented) RFID interrogator system of claim 27, wherein the directors are directional couplers.

30. (Previously presented) The RFID interrogator system of claim 25, wherein the amplifier is a variable gain amplifier (VGA).

31. (Previously presented) The RFID interrogator, system of claim 25, wherein each of the plurality of amplifier switch blocks further comprises a feedback loop coupled with the output of the amplifier, the feedback loop configured to sense the output energy from the amplifier and control the amplifier gain in response to the sensed output energy.

32. (Previously presented) The RFID interrogator system of claim 31, wherein the feedback loop maintains the transmit signal energy at or below a certain level.

33. (Previously presented) The RFID interrogator system of claim 31, wherein the feedback loop maintains the transmit signal energy at or above a certain level.

33. (Canceled)

34. (Previously presented) The RFID interrogator system of claim 25, wherein the energy director is coupled with a RF transceiver, configured to process the received signal.

35. (Previously presented) The RFID interrogator system of claim 34, wherein the energy director is configured to direct the receive signal around the amplifier and to the RF transceiver.

36. (Previously presented) The RFID interrogator system of claim 33, wherein the energy director is configured to direct the transmit signal from the RF transceiver to the amplifier, and from the amplifier to the antenna.

37. (Previously presented) The RFID interrogator system of claim 33, wherein the RF transceiver is configured to send the receive signal to a decoder.

38. (Previously presented) The RFID interrogator system of claim 25, wherein the energy director is coupled with a switch, the switch configured to direct the transmit signal to one of the plurality of antennas.
39. (Previously presented) The RFID interrogator system of claim 25, wherein the energy director is coupled with a plurality of switches, each of the plurality of switches configured to direct the transmit signal to one or more of the plurality of antennas.
40. (Previously presented) The RFID interrogator system of claim 25, wherein the transmit signal is transmitted to an RFID tag.
41. (Previously presented) The RFID interrogator system of claim 25, wherein the received signal contains data from the RFID tag.
42. (New) The RFID interrogator system of claim 31, wherein the feedback loop includes an energy coupler, a rectifier, and a power leveling network.